



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,170	04/02/2004	Scott Garner	022232-9041-01	2726
23409 7590 06/16/2008 MICHAEL BEST & FRIEDRICH LLP 100 E WISCONSIN AVENUE Suite 3300 MILWAUKEE, WI 53202				
EXAMINER				
AFZALL SARANG				
ART UNIT		PAPER NUMBER		
3726				
MAIL DATE		DELIVERY MODE		
06/16/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/817,170

Applicant(s)

GARNER, SCOTT

Examiner

SARANG AFZALI

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 2/19/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 9-11 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 8 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed on 2/19/2008 has been fully considered and made of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 9-11 and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Fichera et al. (US 6,953,555).

As applied to claim 1, Fichera et al. teach a method for forming a heat transfer device for dissipating heat comprising the steps of:

arranging a plurality of fins (side surfaces 16 of each groove 12/fluid channel 40, Figs. 1 & 6) that are formed with openings that substantially align with one another so as to define a die (openings 40 are aligned parallel with each other, Fig. 6);

driving a heat pipe (tube 30, Fig. 2a) into said die so as to deform the heat pipe (tube 30) thereby forming at least one flattened surface (Fig. 2b) and wherein an outside

shape of the heat pipe (tube 30) is complementary with said openings (located next to the rest of the channels 40, Fig. 6); and

supporting said fins upon the heat pipe such that the heat pipe substantially defines a mounting base for said heat transfer device, and is attachable to a heat source for thermal energy exchange with said heat source (both sides may receive a heat source, Abstract, lines 1-15).

As applied to claim 9, Fichera et al. teach a method wherein the fins are substantially exclusively supported by at least one heat pipe (tube 30, Fig. 2b).

As applied to claim 10, Fichera et al. teach a method wherein the outside shape of the heat pipe (tube 30, Fig. 2b) is changed by driving (pressing, Abstract, line 3) the heat pipe on a forming surface defined by the plurality of fins (surfaces 16 of each fluid channel 40, Figs. 1 & 6).

As applied to claims 11, Fichera et al. teach a method wherein the plurality of fins are arranged such that they form a stack of spaced apart fins (Fig. 6).

As applied to claim 13, Fichera et al. teach a method wherein the heat pipe (tube 30) is deformed by contact with the fins (Figs. 2a-2b).

As applied to claim 14, Fichera et al. teach a method including aligning the openings in the fins to define a channel (side surfaces 16 of each groove 12) to define a channel (40, Fig. 6), and wherein the channel (40) has a reduction in channel width (top portion, Figs. 2b & 6) for at least partially defining the outside shape of the heat pipe.

As applied to claim 15, Fichera et al. teach a method including forming the heat pipe to define an oval cross-section having a flattened surface on at least one side (Fig. 2b).

Allowable Subject Matter

4. Claims 8 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowable subject matter:

Regarding claim 8, the prior art fails to teach or remotely suggest the step of forming a collar raised around at least part of said opening prior to driving the heat pipe into said die.

Regarding claim 12, the prior art fails to teach or remotely suggest the step of forming the fins from substantially parallel flat sheets.

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 8-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's argument is persuasive and as such the rejection of claims 1 and 8-15 under 35 USC 112, second paragraph is withdrawn.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARANG AFZALI whose telephone number is (571)272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on 571-272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sarang Afzali/
Examiner, Art Unit 3726
6/9/2008

/David P. Bryant/
Supervisory Patent Examiner, Art Unit 3726